

NOTES ON THE BIRDS OBSERVED DURING THE CRUISE OF THE
UNITED STATES FISH COMMISSION SCHOONER GRAMPUS IN
THE SUMMER OF 1887.

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At the request of Professor Baird, I accompanied the U. S. Fish Commission schooner *Grampus* on her summer cruise in 1887 for the purpose of observing and collecting the fish-eating birds, together with their eggs and young.

In the following pages I have treated each species briefly, giving only the results of our own observations. As all on board were interested in the matter, and frequently called my attention to birds seen by them, I believe the list contains all the species that came within a reasonable distance of the vessel.

One might naturally think that on a cruise of this character sea-birds would be found to be generally numerous, but such was not the case. With few exceptions, and these mainly on breeding islands, birds were very scarce, most of the many species having completed their migrations, and being in the far north or inland.

As to the relative abundance of the species, I would place the most prominent in the following order: Puffins, Shearwaters, Black Haggons, Murres, and Gannets. Good skins were made of the greater number of the species, and in many cases, also, eggs, embryos, and young in various degrees of plumage, were obtained.

The localities visited were as follows: The Magdalen Islands and Bird Rocks, in the Gulf of St. Lawrence; St. John's; Funk Island; Seldom Come By; Cape Freels Penguin Islands; Toulinguet and Canada Bay, in Newfoundland; Black Bay and Mingan Islands; southern Labrador, and Percé, Canada.

The time covered was from July 8 to August 31.

A.—AQUATIC BIRDS.

1. *Urinator imber* (Gunn.). Loon.

One seen in Canada Bay, and several others near the Mingan Islands, were the only ones met with.

2. *Fratercula arctica* (Linn.). Puffin.

I should consider this bird (excepting, perhaps, the hagdons), to be the commonest seen on the cruise. At the Bird Rocks and Bonaventure Island they were outnumbered by the gannets, but at the other places visited they were far in the majority. Standing on Funk Island, during the day, one would think that the screaming, quickly moving Arctic terns were the most abundant, but as evening approaches an apparently endless stream of puffins, coming from all points of the compass for miles around, flock to their breeding grounds in the center of the island, most of them having fish in their bills for the young. Flying in a straight line they would suddenly notice the observer, and, swerving to the right or left, perch in immense numbers upon the bowlders and high broken rocks. After a short rest many would fly off and disappear in the numerous breeding holes which have been excavated by them under the weather-worn and broken rock characteristic of the island. A few fresh eggs were found; but most of the burrows examined contained young birds only a few days old. At Mingan a few young were flying about, while at Bonaventure they were quite numerous.

At the Mingan Group these birds breed only on an islet near Mingan or Bald Island, and on the little group of islets to the westward called Perroquet Islands. Here they excavate burrows on the surface, mostly connected by runs from the edges of the cliffs, their excrement and offal causing an immense growth of vegetation, principally the *Cælopleurum gmelini*, to completely cover the surface to a height of about ten feet.

From the number of wings seen near an Indian lodge at Mingan it would seem that they do not remain unmolested by man; but nature is slowly but surely confining their present breeding grounds, and in perhaps less than a century their nesting sites will be forever destroyed by the elements and the waters of the Gulf of St. Lawrence. It needs but a glance to show that these islands were very much larger than at present, and the most casual observer will notice that the same forces that reduced them to their present size are still at work. Such, indeed, would seem to be the fate in store for all the islands visited in the Gulf of St. Lawrence, their area being constantly reduced and there being abundant evidence that they at one time greatly exceeded their present size.

3. *Cepphus grylle* (Linn.). Black Guillemot.

The old birds were quite abundant at the Magdalen Islands during our stay, but no young were seen. A solitary bird at Funk Island, another in Canada Bay, and several small flocks near Cape Race were the only ones seen on the Newfoundland coast. At Mingan Islands and in Percé Harbor the full-fledged young were quite numerous, together with a few old birds moulting their summer plumage, and

consequently unable to fly. The stomachs examined contained remains of fish, crustacea, stones and small shell-fish. In one case, that of a young bird of the year at Mingan, all these were found.

4. *Uria troile* (Linn.). Murre.

Still very numerous at the Bird Rocks, but much less so at other places visited. The bird is very much persecuted by fishermen, both for its eggs and flesh. At the time of our visit to the smallest Bird Rock we found three fishermen in possession, who, with an ancient shotgun, had obtained quite a pile of the breeding birds, together with a few razorbills, which were destined to vary the monotony of a fish and salt-meat diet. Continual persecution has the effect of causing the murre to lay their eggs in the most inaccessible places, and it was only with difficulty that a few eggs and young were obtained.

I will here call attention to the manner in which these birds are mounted for our museums, and indeed, also to the pictures of this and allied species. But few show any approach whatever to the natural attitude. There is entirely too much of the robin or crow about them and too little of the distinctly specific and characteristic attitude of diving birds. The commonest mistake seems to be mounting the bird sitting on its tail, nine-tenths of mounted birds and illustrations showing this fault. As a matter of fact, the birds rest entirely on the tarsus, even walking in this position; but when hurried raise up on their toes and move very quickly. When resting or walking on the tarsus the tail is elevated above the ground so that one may almost pass the open hand between; the thighs are very full and pronounced, and the feet trend inwards. Another fault is in making the neck and breast entirely too large. In the many specimens I examined the upper part of the breastbone showed very prominently, and the head and neck were very small. This bird feeds almost exclusively on fish, especially such species as the lant and capelin, which they capture under water, using their wings to propel themselves. We had a good opportunity of witnessing this, having captured a murre alive and placed it in the well of the *Grampus*, where it proved of the greatest interest to all.

At first it was very wild, but in a few days it would take food from our hands and follow one about. Upon dropping some food in the water it would instantly dive and quickly seize and swallow it, then swim around the well as if searching for an exit, and suddenly rise to the surface. Its motions under water were very rapid and the movements of the wings similar to those of flight, except that the wings were never outstretched, the muscular effort being confined to the humerus and ulna. I brought the bird to Washington, where it lived for several weeks in the basin in the rotunda of the National Museum and attracted considerable attention by its odd and peculiar ways.

5. *Uria ringvia* Brünn. Ringed Murre.

I took a single specimen of this doubtful species at the Bird Rocks. Upon comparison with the other murre taken the same day, I noticed that it differed not only in having the white feathers around the eye, but also in its feet, which were much smaller and less strongly colored. At the time, I wrote in my note-book that the "*ringvia* differs from the common murre in having a white ring around the eye and a white line extending from it backwards; also in having smaller feet with a very faint tinge of color on the scales of the toes between the joints," which is very strongly marked in the common murre and *U. lomvia*."

6. *Uria lomvia* (Linn.). Brunnich's Murre.

Very abundant at the larger Bird Rock. A young bird taken while approaching Canada Bay was the only one of this species seen elsewhere.

7. *Alca torda* Linn. Razor-billed Auk.

Most abundant at the Bird Rocks. At Funk Island they were far from common, and, with the murre, laid their eggs in crevices and under rocks that were only accessible with much trouble and difficulty.

It is easy to imagine what must have been the abundance of these birds in former years on this lonely, almost inaccessible ocean island. Great auks, murre, razor-bills, puffins, Arctic terns, gannets, and perhaps other species undoubtedly swarmed, each species having its own nesting ground, and never molested except by an occasional visit from the now extinct Newfoundland red man; but now, since the white fisherman began to plunder this, to them, food and feather giving rock, how changed: To-day, but for the Arctic terns (which are useless for food or feathers) and the puffins (which are in most cases impossible to dig out), the island may be said to be deserted by birds. Only bones of the great auk, a few murre, still fewer razor-bills, and a few birds of other species are all that now breed on the island. Sixteen barrels of murre and razor-bill eggs have been known to be gathered at one time, and taken to St. John's. On July 23 and 24, aside from those of the Arctic tern, we did not see a dozen eggs.

8. *Plautus impennis* (Linn). Great Auk.

This bird can hardly be left out, especially as its remains was one of the objects and a skin one of the hopes of the cruise. The bird is almost beyond doubt extinct. At Twillingate we heard of a man who had said he had seen a bird within two years past, but as he was away at the Labrador, fishing, and nothing definite could be learned of the locality, it was not deemed advisable to waste time in following what was probably a mistaken identification. The fate of the great auk is

well known among the people of eastern Newfoundland, and with the constantly increasing travel and the high value of the skin or eggs, it would seem strange that, if the bird still exists, none should have been taken for so many years.

9. *Stercorarius pomarinus* (Temm.). Pomarine Jaeger.

Several were seen at intervals from Cape Pine northwards, and through the strait of Belle Isle to the Mingan Islands, but they were very shy and none were obtained.

10. *Rissa tridactyla* (Linn.). Kittiwake.

Breeding abundantly at Bird Rocks, Bonaventure and Bacallioa Islands, Newfoundland. None were seen elsewhere except on the homeward voyage, off Cape Sable, when several young were observed. A young bird taken from the nest at Bird Rocks was kept alive and accompanied us around Newfoundland, becoming, as it grew up, quite a pet with all on board, and being allowed perfect freedom. On the homeward voyage, when off East Point, Prince Edward Island, a mackerel schooner sailing in an opposite direction came close by to speak with us. The bird was on deck at the time, and as the vessel passed the wind from the sails of the mackerelman swept down on our decks: Johnny felt it and opening his wings flew from the vessel to some distance. He, however, returned, but the *Grampus* was going at such a rate that he could not reach her; he then flew off but soon returned and tried again to make the vessel but failed. Again he flew off and making a wide detour returned and again attempted to reach the vessel, but the rapid rate at which we were going prevented him, and at last, tired out, he slowly settled on the surface, carefully dropping his feet as he reached the water, precisely in the same manner as older birds. Considering that the bird had never flown before, and since he was a nestling had never seen other birds flying, his performance, especially his three attempts to reach the vessel, was remarkable. He had become a pet with all on board, and it was with great regret that we were compelled to leave him to his fate; a victim, doubtless, to his inability while in captivity to make proper use of the oil glands which in sea birds are a very essential part of their economy.

11. *Larus marinus* Linn. Great Black-backed Gull.

Quite frequently seen in the Gulf of St. Lawrence, and on the Newfoundland coast, but everywhere shy and keeping well out of range. A few young were flying about the Mingan Islands, but they were very shy.

12. *Larus argentatus smithsonianus* Coues. American Herring Gull.

Very abundant along the Newfoundland and Labrador coasts where they breed about the shores of the numerous lakes and ponds which

occur so frequently in this region. At Fogo Island we were told that the nests were placed upon the lower branches of the spruce trees on the islets in the lakes; but at Mingan Islands, where the birds were very abundant, and but little disturbed, numerous nests were found on the ground under trees and near the edges of ponds.

Some of the nests were simply depressions in the top of hillocks of moss; others were evidently similar depressions on patches of dead grass and other plants, but in most cases the birds had drawn some of the dried grass and even sticks around them as they sat on the eggs. At the time of our visit the young had all left the nests, but a few were found concealed among the rocks and bushes, although most of the young of the season were flying overhead. On one of the Mingan Islands, which is heavily wooded, hundreds of the gulls might be seen in the evening roosting on the tall evergreen trees, but on another island, which is entirely destitute of trees, the birds roost in immense numbers on the high ground, keeping up all night a continual babel of sounds which can be heard several miles.

The well-fattened young of this species may be said to form a not insignificant part of the winter diet of the Newfoundland fisherman at outlying places. Capt. J. W. Collins in an interesting paper on sea-birds, in the report of the U. S. Fish Commission for 1882, alludes to this habit of the coast fisherman as follows :

It may be of interest to mention in this connection that the coast fishermen of Newfoundland capture the young of the sea-gulls (generally of the larger species) while they are yet nestlings, and carefully rear them until they are full grown, feeding them chiefly on fish. A single family may have a dozen or twenty of these young birds. I have frequently seen ten or a dozen young gulls in a pen at Belloram, Fortune Bay, and there were a number of such pens in the little village. In many places on the Newfoundland coast these birds, I have been told, occupy the same place that with us is filled by the domestic fowls. Instead of the conventional turkey for the holidays, the coast fisherman is satisfied with the young and fat gulls which he has raised.

I have been unable to find any other published account of the utilization of the young of this species as food. While the *Grampus* was at Little-Seldom-Come-By Harbor, Fogo Island, I had an opportunity of examining a pen of these birds, which are kept in the same manner as one keeps pigs. The birds, of which there were eight of different sizes, belonged to an apparently prosperous fisherman. A corner of the garden had been converted into a pen about 5 feet square. Wishing to obtain a specimen of the young, I made known to the good housewife my reasons for desiring one, but she simply could not understand that I wanted it as a specimen, so the husband was called in and the matter explained. After considerable talk and explanation, and the promise on my part that if they would visit the vessel I would be only too glad to recompense them with some powder and shot, I succeeded in obtaining their consent to select a specimen. I doubt if to this day they have been able to comprehend my reasons for desiring the specimen.

The birds are fed mostly on fish offal; in fact, nothing comes amiss to them, their ability to swallow being only limited by their size and the extent to which they can expand their jaws. As a consequence, they become very fat and tame, following one about like a dog, and occasionally going to the water and helping themselves to what they can find, but invariably returning to their homes. In January and February, when other food is scarce, the gulls are killed and return to the sometimes famished fishermen and their families, in another and more palatable form, some of that abundance which could not be otherwise utilized during the fishing season.

13. *Larus philadelphia* (Ord). Bonaparte's Gull.

Young flying birds were quite abundant at the mouth of Mingan River, together with a limited number of old birds. A few others were afterwards seen in the Straits of Canso.

14. *Sterna hirundo* Linn. Common Tern.

Met with abundantly everywhere, except on Funk Island.

15. *Sterna paradisæa* Brünn. Arctic Tern.

Breeding in immense numbers on Funk and Penguin Islands. None were seen elsewhere.

On Funk Island the eggs and young birds were very numerous, the nests occurring at intervals of a few feet throughout the central part of the island except where the space was occupied by the puffins.

The old birds were very numerous, screaming and hovering overhead, now and then swooping down and striking our hats with their wings. The young of the previous year were moderately abundant, but very shy, keeping well above the others, and only occasionally coming within shot; they were readily distinguished by the short tail and the peculiar appearance of the head.

The Arctic Tern is not at all choice about its nesting place. Seven specimens of the nests were collected which may be taken as typical of the different locations and are as different as the shape and coloration of the eggs.

Nest No. 1 is simply a few small broken pieces of granite and a bone of the Great Auk. The eggs were laid on the bare rock and the stones were arranged in a ring as if the bird had drawn them toward her as she sat on the eggs; although, as there were no stones within several yards of the nest, it would seem as if the bird had gathered them at a distance. Quite a number of these nests were seen.

Nest No. 2 is simply a depression scratched in gravel, and No. 3 is a similar depression in dry mussel shells.

Nest No. 4 is a depression in a bunch of plants of a species of plantain with several pieces of granite rock on one side. This nest was in a crevice.

In No. 5 the eggs were deposited in a living, tangled mass of chickweed about 6 inches high, the plants within a circle of 5 inches being dead, with the eggs in the center, thus forming the nest.

No. 6 contained three eggs and was really more nest-like than the others, being composed of dead grass, apparently well arranged, with a depression in which the eggs were deposited. This nest was taken on Penguin Island, and is composed of dead grass made into a hummock by mice (*Arvicola riparia*), which are very abundant on the island. The tern had simply appropriated the place, and scratching the top had soon formed the nest.

No. 7 is merely the top of a bunch of dry grass found along shore and adopted by the bird as a suitable nesting site.

Of the many nests examined two contained three eggs each; in one case two were incubated and the other perfectly fresh. Many nests contained a young bird and an egg nearly ready to hatch.

In no other species of bird with whose breeding habits I am familiar has nature been so prodigal of life as in the case of the young terns on Funk Island. The surface of the granite rock of the island has been corroded by time and the elements to such a degree that many shallow depressions have been rotted, as it were. These have been filled with water by the abundant rain, and prove veritable death-traps to the young terns. Many of them leave the nest when a few days old and wander about. Numbers are thus lost among the rocks and drowned while trying to get back to their parents. This explanation seems to me to account for the numbers of dead young found in the pools. In fact, I rescued a number in places from whence there was no escape for them except through several inches of water. There were two colors of the young, which had no relation whatever to the sex, and were about equal in abundance. In perhaps half of the instances both colors were found in the same nests, and not infrequently they were of different sizes.

16. *Puffinus major* Faber. Greater Shearwater; Hagdon.

Met with in immense numbers off the entire southeastern coast of Newfoundland, and less numerous on the northeast coast and through the Straits of Belle Isle, nearly to the Mingan Islands, also sparingly along the Nova Scotia coast while going north, and from Canso to Nantucket on our return. Between Cape Pines and St. John we saw thousands, nearly all of which were sitting on the water in flocks of from fifty to a hundred. In the Report of the Fish Commission for 1882, Capt. J. W. Collins, in a paper on the habits of this species, states that for a few days after their arrival at their destination in spring they congregate in flocks and remain for several days in apparent inactivity, without feeding. At such times they can not be enticed within range of a gun or baited hook. We tried in various ways to decoy them to the vessel, but without success; nor would they allow us to approach

near enough with a boat to shoot them, and it was only by sheer good luck that we were able to secure two specimens out of the many thousands seen.* The reason for their shyness and indifference to food when congregated in flocks in the spring and fall may lie in the fact that they are then moulting. The condition of the specimens obtained, together with the myriads of feathers floating on the surface of the ocean, would seem to prove this view. It is not an unusual event for the fishermen of Newfoundland to take this bird for food. When a fog has been blown on shore for several days, the hagdon become quite numerous in the bays and inlets along shore, and are then easily approached in a boat and shot.

17. *Puffinus stricklandi* Ridgway. Sooty Shearwater; Black Hagdon.

A few scattered individuals were seen when going north along the Nova Scotia coast, and from Cape Pines to St. John they were very numerous. The species was very common off Canada Bay and in the straits of Belle Isle, and a few were occasionally seen as far west as the Mingan Islands. On our return a few birds were seen soon after leaving Cape Sable, and then to within a few miles of Pollock Rip light-ship. Generally they were seen with the common hagdon, but on the Newfoundland coast it was not unusual to see them in large flocks by themselves. They were very wild, and we failed in every attempt to obtain a specimen. The day following our arrival in Canada Bay a dense fog set in, which was taken advantage of by some of the fishermen to secure a Sunday dinner of bird meat. The result of a few hours' shooting was about thirty birds, more than half of which were of this species, but unfortunately it was not known to us until the birds were all picked and most of them eaten.

18. *Oceanodroma leucorhoa* (Vieill.). Leach's Petrel.

Seen with varying degrees of abundance throughout the voyage. During our visit to the Bird Rocks four females and five eggs were taken from a hole which had its opening at the side of a slight depression. The birds were clustered together, and a little short dry grass had been utilized as nesting material. The restricted area of the island and hardness and unsuitability of the surface may account for so many birds having nested in one burrow. The light-house keeper, who has resided on the island for about fifteen years and has given great attention to the birds nesting there, told me that he had only been aware of these birds nesting on the island since the summer of 1885 and had never yet seen a bird flying about the island during the day. At Penguin Island we found that this species had adopted old puffin and mice burrows as nesting places, and but a single bird and egg were found

* Capelin were very abundant at the time, and perhaps the abundance of food prevented them from taking our bait.

in each. During the few hours we spent there I noticed a petrel continually flying backwards and forwards across the island in the same manner as a swallow. The bird was evidently seeking its nest, but was disturbed by our presence, and after several attempts on my part to get within range it flew out to sea.

19. *Oceanites oceanicus* (Kuhl.). Wilson's Petrel.

Met with only at Cape Sable and Cape Cod, when homeward bound. In proportion to the preceding species they were about as one to a hundred. Several specimens were obtained by decoying both species to the vessel by small pieces of fat, but all attempts to take one on a hook were futile. The yellow spots on the web of the feet readily distinguished this species whenever they approached the water to take the fat, both species having the habit of dropping the legs and expanding the toes when taking food.

20. *Sula bassana* (Linn.). Gannet.

The gannet is the best known and the most striking of all the birds seen on the cruise. To the fishermen they are especially interesting, as their presence informs them of the approach of the schools of herring and mackerel, and hence they are eagerly watched. Their eggs are always welcome, and every nest that by any means can be reached by man is repeatedly robbed of its contents. On our visit to the little Bird Rock we found the surface of the larger rock covered with newly made nests, but not an egg was to be seen, the nests having doubtless been repeatedly robbed, as the surface of the rock could be reached with comparatively little difficulty.

The top and sides of the pillar, or smaller rock, were literally covered with the breeding birds, but it was only by the greatest difficulty in climbing and the use of a net that a few eggs and young birds were collected. But three breeding places of the species were found by us, and so far as I can obtain information no others exist on our coast except on eastern Labrador.

Mr. Lucas has so thoroughly written up this species in "The Auk" for April, 1888, to which the reader is referred, that I have very little to add. That the abundance of the species in the Gulf of St. Lawrence has greatly diminished within the past few years is self-evident. A very superficial examination will convince any one that not only is the bird persecuted by man, who robs it of its eggs whenever he can reach its nests, but that even nature is its enemy, and will eventually force it from its present breeding grounds and compel it to move elsewhere or succumb to the fate that has overtaken so many now extinct species that have duly run their race.

Time, frost, and moisture will at some time in the future level the present nesting sites of the gannet beneath the waters of the Gulf of St. Lawrence, and the perpetuation of the species will depend on the adaptability of the bird to other and perhaps new conditions.

21. *Phalacrocorax dilophus* (Sw. and Rich.). Double-crested Cormorant.

A few seen off Mingan, but at Perce they were very abundant.

2. *Merganser americanus* (Cass). American Merganser.

One seen at Mingan.

23. *Anas obscura* (Gmel.). Black Duck.

In Canada and Black Bays but few were seen, but they were quite abundant at Mingan.

24. *Somateria dresseri* Sharpe. American Eider.

At the Mingan Islands several large flocks of the young of this species were met with. Accompanied by the old birds they would coast the shores, but when approached in a boat would swim rapidly out to sea, and when overtaken, being unable to fly, would dive and scatter most effectually.

25. *Oidemia deglandi* Bonap. White-winged Scoter.

Several flocks were seen at the Mingan and Magdalen Islands.

26. *Branta canadensis* (Linn.). Canada Goose.

A small flock was seen flying southward on August 11, at Mingan.

27. *Ardea herodias* Linn. Great Blue Heron.

The only herons seen on the cruise were two birds of this species, which perched upon the edge of Perce Rock, 270 feet high, looked down on us apparently conscious that they were safe from our guns.

28. *Crymophilus fulicarius* (Linn.). Red Phalarope.

Met with in great abundance between Cape Sable and Cape Cod on August 30, usually feeding among the drift sea-weeds in the calm water between the tide-rips. A small flock was also seen off Bonaventure Island on August 23.

The abundance of this species off Cape Sable at this time would probable indicate their line of fall migration. The trend of the coast and the abundance of food in the tide-rips caused by the tides of the Bay of Fundy would furnish abundant reason why this graceful little bird should brave the sea at such a distance from land. These birds are known to the fishermen as sea-geese, a not inappropriate name, one would think while watching them paddling rapidly up the side of a huge wave and gracefully flying over its crest just as the waters seemed to engulf them. The dense mass of feathers on its breast seems to fit it entirely for an ocean life, and one doubts while viewing it among the waves, as it rapidly and gracefully paddles among the sea-weeds seeking its food, that there is anything snipe-like in its structure.

29. *Phalaropus lobatus* Linn. Northern Phalarope.

While approaching the Mingan Islands, on August 10, several large flocks of this pretty little bird were seen feeding in the long streaks of calm water between the tide-rips.

30. *Gallinago delicata* (Ord.). Wilson's Snipe.

Quite abundant near St. John's, where they were seen by the roadside.

31. *Micropalama himantopus* (Bonap.). Stilt Sandpiper.

One seen at Penguin Island.

32. *Tringa canutus* (Linn.). Knot.

Two females were taken on Mingan Island from among the flocks of the following species.

33. *Tringa fuscicollis* Vieill. White-rumped Sandpiper.

The commonest bird at the Mingan Islands, far outnumbering all other species together. A few flocks were found in Canada and Black Bays. As it is the habit of this bird to congregate in dense flocks, so that from fifty to one hundred can be killed at one discharge, it is consequently sought after by the Indians and fishermen.

35. *Calidris arenaria* (Linn.). Sanderling.

A few in Canada Bay in company with the white rumped sandpipers.

35½. *Totanus melanoleucus* (Gmel.). Greater Yellow-legs.

Very abundant at Mingan, but not seen elsewhere.

36. *Actitis macularia* (Linn.). Spotted Sandpiper.

Seen sparingly at every place visited.

37. *Numenius* sp. (?) Curlew.

A few flocks seen at Black Bay and the Mingan Islands were the first arrivals. These birds feed mostly on berries, which are very abundant on the hills, becoming very fat, and are easily obtained before their departure.

38. *Ægialitis semipalmata* Bonap. Semipalmated Plover.

A few were taken at Mingan.

39. *Ægialitis meloda* (Ord.). Piping Plover.

Common on Amherst Island, Magdalens; a small flock was seen near St. John's.

40. *Arenaria interpres* (Linn.). Turnstone.

A few found at Mingan with other shore birds and evidently migrating; they were very shy and watchful.

B.—LAND BIRDS.

In addition to the sea birds, such opportunities as were incidentally afforded were improved to observe and collect land birds, many of which were interesting, while one species had not previously been obtained for the collections of the National Museum.

The following is a list of those seen and collected :

Dendragapus canadensis (Linn.). Canada Grouse.

Several young birds of this species were seen by some of the party on two occasions in the spruce at the mouth of the Mingan River. They were very tame and permitted one to approach within a few feet. We were informed that they were generally very abundant, but that great numbers had been destroyed by the severity of the previous winter.

Lagopus welchi (Brewst.). Welch's Ptarmigan.

Called Rock Partridge by the natives of Canada Bay, but this name would seem to be applied to other species of the genus. The Willow Ptarmigan, which is the common species, is readily distinguished by Newfoundlanders from the other species, and is always found on much lower ground. Two birds, a pair, were collected on the high rocks near the Cloud Hills in Canada Bay, at an elevation of a thousand feet. Here the bird breeds and is abundant, according to the account given us by the fishermen.

Buteo borealis (Gmel.). Red-tailed Hawk.

Two were seen at the Mingan Islands.

Buteo lineatus (Gmel.). Red-shouldered Hawk.

While passing through the Straits of Canso on our return, a bird of this species made several ineffectual attempts to perch upon the truck of the main-topmast.

Falco columbarius (Linn.). Pigeon Hawk.

Very abundant at the Mingan Islands, but not seen elsewhere; though a small hawk seen at Black Bay may have been of this species. Their abundance may have been owing to the presence of numerous flocks of white-rumped sandpipers and other shore birds, upon which they to a great extent subsist. While lying at anchor in Mingan Harbor, we witnessed the efforts of a hawk to capture a sandpiper. For fully five minutes the sandpiper tried by sudden twistings and turnings to evade

the claws and beak of its enemy, and for a time proved by its maneuvers to be more than a match for the hawk. But at last, completely exhausted, it fell a prey only to the superior endurance of its captor.

Pandion haliaetus carolinensis (Gmel.). American Osprey.

But few seen; one off Cape Race, Newfoundland, eight miles from land. Several pairs at the Mingan River, and several in George's Bay, off Cape Breton Island.

Ceryle alcyon (Linn.). Belted Kingfisher.

Quite common at the Magdalen Islands; only seen elsewhere at the mouth of the Mingan River.

Colaptes auratus (Linn.). Flicker.

A single bird of this species seen near St. John's was the only woodpecker met with.

Empidonax flaviventris (Baird). Yellow-bellied Flycatcher.

Two specimens were collected near St. John's, July 19th, in clearings in the woods where evidently they were breeding. No other flycatchers were found, though diligently looked for.

Otocoris alpestris (Linn.). Horned Lark.

Found only at Penguin Islands and Canada Bay. At the former place (a low, flat, grassy island) several old birds were seen, who, during our visit, perched on the bowlders that surround the island, and two young birds, which were evidently bred at the island, were collected. At Canada Bay a few old birds were found at the Cloud Hills, at an elevation of nearly 1,000 feet.

Corvus corax nobilis (Ridgw.). Northern Raven.

By no means abundant; quite a number were seen in Canada and Black bays and flying on the Straits of Canso, generally in flocks of five or six. At the former places they would visit the shore at low tide to feed upon the dead and dying capelin, which were left in abundance on the beaches. Every attempt to get near the wary birds proved futile, but at Black Bay one at least owed its safety only to the exasperating abundance of that intolerable nuisance, the black fly.

Corvus americanus (Aud.). American Crow.

Common at the Magdalen and Mingan Islands; several were also seen near St. John's. At Mingan we were told that ravens were abundant there; none were seen, though crows were quite common; evidently no distinction is made, and to the natives they are all ravens.

Perisoreus canadensis nigricapillus (Ridgw.). Labrador Jay.

At Fogo Island, Canada Bay, and Mingan Islands, in wooded places, a few jays were found, though never abundant.

The birds were all found near the edge of the dense spruce woods, and were evidently attracted to us by the noise made by forcing our way through the underbrush; in fact every bird collected, when first seen, would fly directly towards us and perch upon the nearest tree. At Canada Bay, while walking along a gravelly beach, necessarily making considerable noise, a jay flew out of the dense wood at the side of a hill, and perched upon the top of the nearest tree. I stood motionless while he eyed me for some time. Apparently not satisfied, he flew nearer, to a dead branch, and repeated his scrutiny; still not satisfied, he next perched upon a dead branch lying upon the beach not 10 feet in front of where I stood, and sat turning his head now on the one side and then on the other, so as to get a good observation of what was apparently to him a great novelty.

On a subsequent occasion, after spending the day on one of the Mingan Islands, which is very densely wooded, we started to drag our dory down to the water, necessarily making considerable noise. While doing so, and glancing towards the wood, I observed a jay perched upon the top of the nearest tree, evidently interested in our proceedings. I immediately shot him, and the report had hardly died away when another jay took his place. He, too, followed the first, when instantly another flew to the very same tree, only, however, to meet the same fate.

Though we had spent the whole day on the island, and I had walked entirely around it, we had not seen a jay until the unusual sound caused by dragging the dory over the gravelly beach had apparently attracted their attention.

Scolecophagus carolinensis (Müll.). Rusty Black-bird.

One seen at the Magdalen, another near St. John's, and several small flocks on Fogo Islands.

Quiscalus quiscula æneus Ridgw. Bronzed Grackle.

Several crow black-birds were seen near St. John's, on July 19. As *Quiscalus quiscula* is not known to occur north of New England, I refer the Newfoundland bird to this subspecies.

Loxia leucoptera Gmel. White-winged Cross-bill.

Observed only at the Magdalen Islands, where it was very abundant. At the Larger Bird Rock, on July 9, they were quite numerous, in company with pine siskins, hopping on the ground like sparrows, and apparently feeding on the short grass. They were very tame, allowing one to approach within a few feet.

Acanthis linaria (Linn.). Redpoll.

A flock of nine birds were found on Funk Island feeding upon the short grass, and when disturbed, seeking shelter under the large boulders and overhanging rocks. A number were also seen at Twillingate and Canada Bay in the vicinity of houses.

Spinus pinus (Wils.). Pine Siskin.

Very abundant at the Magdalen Islands and in Newfoundland. Several came aboard on rainy occasions when several miles from land; at St. John's they were very abundant, usually in flocks about the roadside and fences.

Ammodramus sandwichensis savanna (Wils.). Savanna Sparrow.

Very abundant at all places visited. This bird would seem to take the place in the Magdalen Islands and Newfoundland of all the small sparrows so common in the States. In the fields and waste places and about the houses one could always find this interesting species. Almost the only bird song heard on the voyage were the exquisite trilling notes of this species; perched upon a roadside fence or top of a solitary bush, they would burst forth with their peculiar song, and the next moment dart headlong into the nearest bunch of long grass, rapidly making their way for some distance and then peering out or hopping to the center of a little elevation and looking back to see what caused the alarm.

Zonotrichia leucophrys (Forst.). White-crowned Sparrow.

Only seen at Black Bay, Labrador, where they were quite abundant.

Zonotrichia albicollis (Gmel.). White-throated Sparrow.

Common everywhere, generally about bushy places, and especially about gardens, where they were complained of as a nuisance, scratching out potatoes, etc.

Spizella monticola (Gmel.). Tree Sparrow.

Seen only at the Cloud Hills, Canada Bay, among the hills, in bushy places and ravines, at an elevation of a thousand feet.

Junco hyemalis Linn. Snow Bird.

A few at the Magdalens and but one at Mingan.

Melospiza georgiana (Lath.). Swamp Sparrow.

Several found near St. John's, about thick bushes, in marshy places.

Passerella iliaca (Merr.). Fox Sparrow.

A very abundant bird at most places visited, generally on low ground, and usually about gardens, where several might be seen at any time scratching for worms, etc.

Tachycineta bicolor (Vieill.) Tree Swallow.

Seen at the Magdalen and Mingan Islands, though not abundant. No swallows were seen while in Newfoundland waters.

Dendroica æstiva (Gmel.) Yellow Warbler.

Seen near St. John's, where it is well known.

Dendroica coronata (Linn.) Myrtle Warbler.

A pair were taken in a wood near St. John's.

Dendroica striata (Forst.) Black-poll Warbler.

Very common at the Magdalens, St. John's, Canada Bay, and Black Bay, where the familiar call was as tantalizing as in more southern climes.

Dendroica virens (Gmel.) Black-throated Green Warbler.

Two birds were taken at the Mingan Islands.

Seiurus noveboracensis (Gmel.) Water Thrush.

Common near St. John's and on Fogo Island, in the underbrush on the shores of the small lakes. Two young, nearly grown, were taken near St. John's on July 19.

Sylvania pusilla (Wils.) Wilson's Warbler.

Two specimens were taken in Newfoundland.

Setophaga ruticilla (Linn.) Redstart.

Common in the woods near St. John.

Anthus pennsylvanicus (Lath.) American Pipit.

Three specimens, an old bird and two full grown young, were taken on the rocks at the Cloud Hills, in Canada Bay, at an elevation of a thousand feet.

Sitta canadensis Linn. Red-bellied Nuthatch.

I captured a young bird with a dip-net, on board, when about 12 miles south of Natashquan Point, Labrador, on August 9.

Parus atricapillus Linn. Chickadee.

Common near St. John's, but not seen elsewhere.

Turdus aliciae Baird. Red-checked Thrush.

A young bird, full grown, caught by a boy in a garden at Canada Bay, was the only one of the genus seen.

Merula migratoria (Linn.) American Robin.

Very abundant every where.